In addition, it is preferred that the hinge portion has an open portion in which an insertion portion of the screw is opened and the open portion is preferably covered by a cover member.

In addition, it is preferred that: a hole portion through which male threads used for the fixing by threads penetrate and the open portion are formed in the second connecting component; female threads that match the male threads are formed in the first connecting component; and the first connecting component and the second connecting component are connected to each other by inserting the male threads into the hole portion through the open portion of the second connecting component and threading into the female threads of the first connecting component.

In addition, it is preferred that a cable, which electrically connects an electronic component in the first body and an electronic component in the second body, is further provided, in which: the second rotational axis is located at a connection portion of the first body fixing component and the first connecting component; the cable is inserted into the connection portion and has a connector at an end portion on a side of the second body in the cable; the open portion of the second connecting component has a size that allows the connector to be inserted therethrough; the second connecting component is cylindrical and has a rotating component, which biases the second body in a direction to open the first body about the first rotational axis, fixed on one end side of the second connecting component, and has an opening on an other side of the second connecting component; and a continuous space through which the connector is inserted is formed in a space from the opening to the open portion.

In addition, it is preferred that the open portion is formed at a position not obstructed by the first body and the second body in the second connecting component, in the closed state.

In addition, it is preferred that the screw insertion direction in the fixing by threads matches a direction in which the first body and the second body overlap.

In addition, it is preferred that: the hinge portion is covered by a cover member; the second body has, at its end portion, a first bearing portion and a second bearing portion at the end portions thereof that separately protrude and pivotally support the second connecting component rotatably about the first rotational axis; the second body has a fitting portion between the first bearing portion and the second bearing portion, in which the hinge portion covered by the cover member is disposed; on surfaces of the fitting portion and the cover member, a first abutment portion and a second abutment portion brought into contact in the open state are formed, respectively; and at least a part of the back side of the second abutment portion in the cover member is formed to be capable of abutting at least either one of the first connecting component and the second connecting component.

In addition, it is preferred that: a first plane is formed on the first abutment portion; a second plane is formed on the second abutment portion; a third plane is formed on an abutting portion with the back face of the second abutment portion in the first connecting component or the second connecting component; and the first plane, the second plane, and the third plane are formed to be capable of abutting in a state parallel with each other in the open state.

In addition, it is preferred that: the cover member is includes a first cover and a second cover; and the first cover and the second cover are preferably formed to be capable of fitting by a fitting means formed on the first cover and the second cover, respectively, by sandwiching the hinge portion.

In addition, it is preferred that: the first connecting component and the second connecting component are formed to be capable of being assembled; the hinge portion has an adjusting means for adjusting an assembly angle of the first connecting component and the second connecting component; and the fitting means is formed so as to surround the adjusting means.

In addition, it is preferred that: the adjusting means includes a screw for fastening the first connecting component and the second connecting component; and an insertion direction of the screw matches a direction in which the first body and the second body overlap each other in the closed state.

Effects of the Invention

According to the present invention, a portable electronic apparatus can be provided that includes a first body and a second body and also including a biaxial hinge mechanism which connects the first body and the second body so as to be openable and closable about a first rotational axis and to be rotatable about a second rotational axis orthogonal to the first rotational axis, in which positional misalignment between both bodies can be easily prevented without relying only on dimensional accuracy of components of the biaxial hinge mechanism.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view illustrating a state (first open state) in which a cellular telephone **1** is opened as an embodiment of a portable electronic apparatus of the present invention;

FIG. **2** is a perspective view illustrating a state of the cellular telephone **1** shown in FIG. **1** in which a display unit side body **3** is rotated about a pivot axis Y by a predetermined angle;

FIG. **3** is a perspective view illustrating a state (second open state) of the cellular telephone **1** shown in FIG. **1** in which the display unit side body **3** is rotated about the pivot axis Y by 180°;

FIG. **4** is a perspective view illustrating a closed state (first closed state) of the cellular telephone **1** shown in FIG. **1**;

FIG. **5** is an exploded perspective view of an operation unit side body **2**;

FIG. **6** is an end face view sectioned along the line A-A shown in FIG. **5** of the operation unit side body **2** with the internal structure omitted;

FIG. **7** is an exploded perspective view of the display unit side body **3**;

FIG. **8** is an exploded perspective view of a connecting portion **100**;

FIG. **9**A is an exploded perspective view showing a hinge portion **4** as well as a front cover **160** and a rear cover **170** covering the hinge portion **4**;

FIG. **9**B is a perspective view illustrating a rear face side of the rear cover **170**;

FIG. **10**A is a perspective view illustrating a fitted state of the front cover **160** and the rear cover **170**;

FIG. **10**B is an end face view of the line B-B shown in FIG. **10**A;

FIG. **10**C is a partially enlarged view illustrating a contact state between a first abutment portion **240** and a second abutment portion;

FIG. **11**A is a view illustrating a state of positional misalignment between a tip portion of the operation unit side body **2** and a tip portion of the display unit side body **3**;

FIG. **11**B is a view illustrating a state without positional misalignment between a tip portion of the operation unit side body **2** and a tip portion of the display unit side body **3**;